

FIG.1

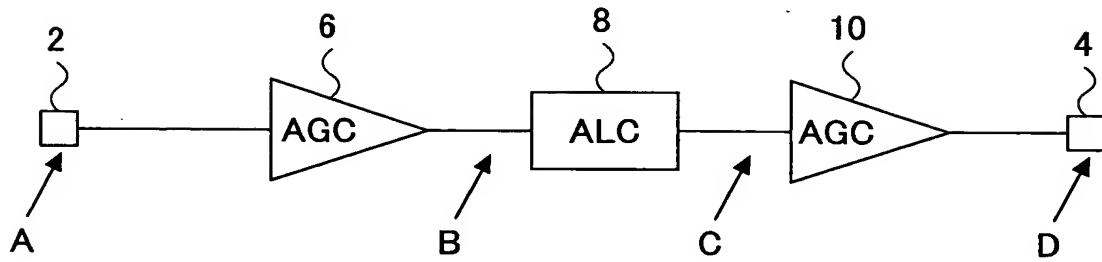


FIG.2

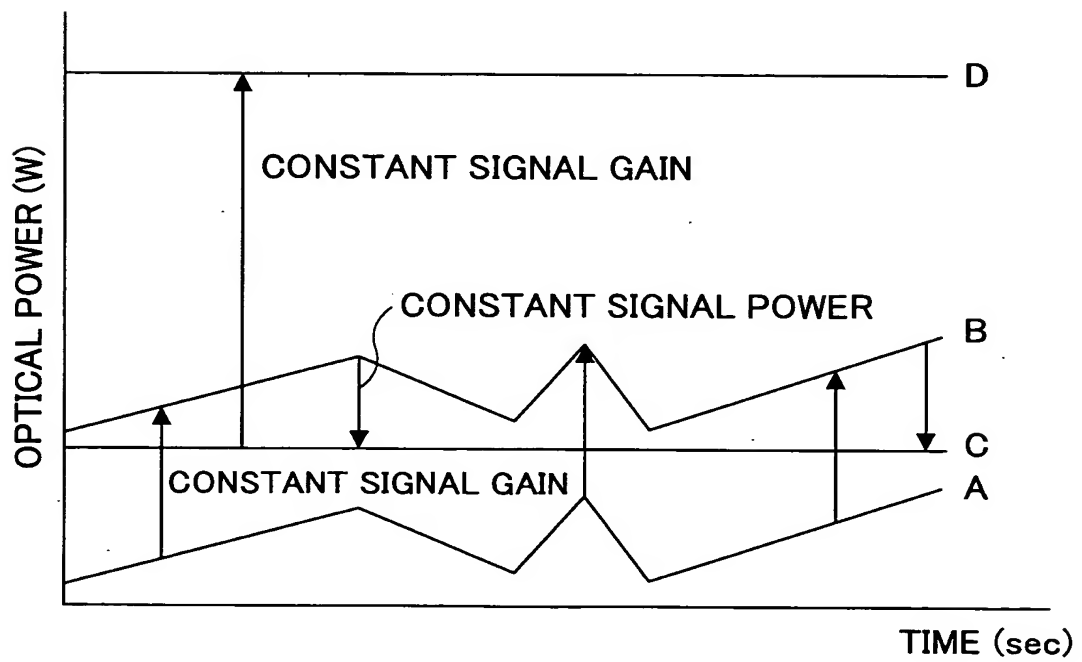


FIG.3

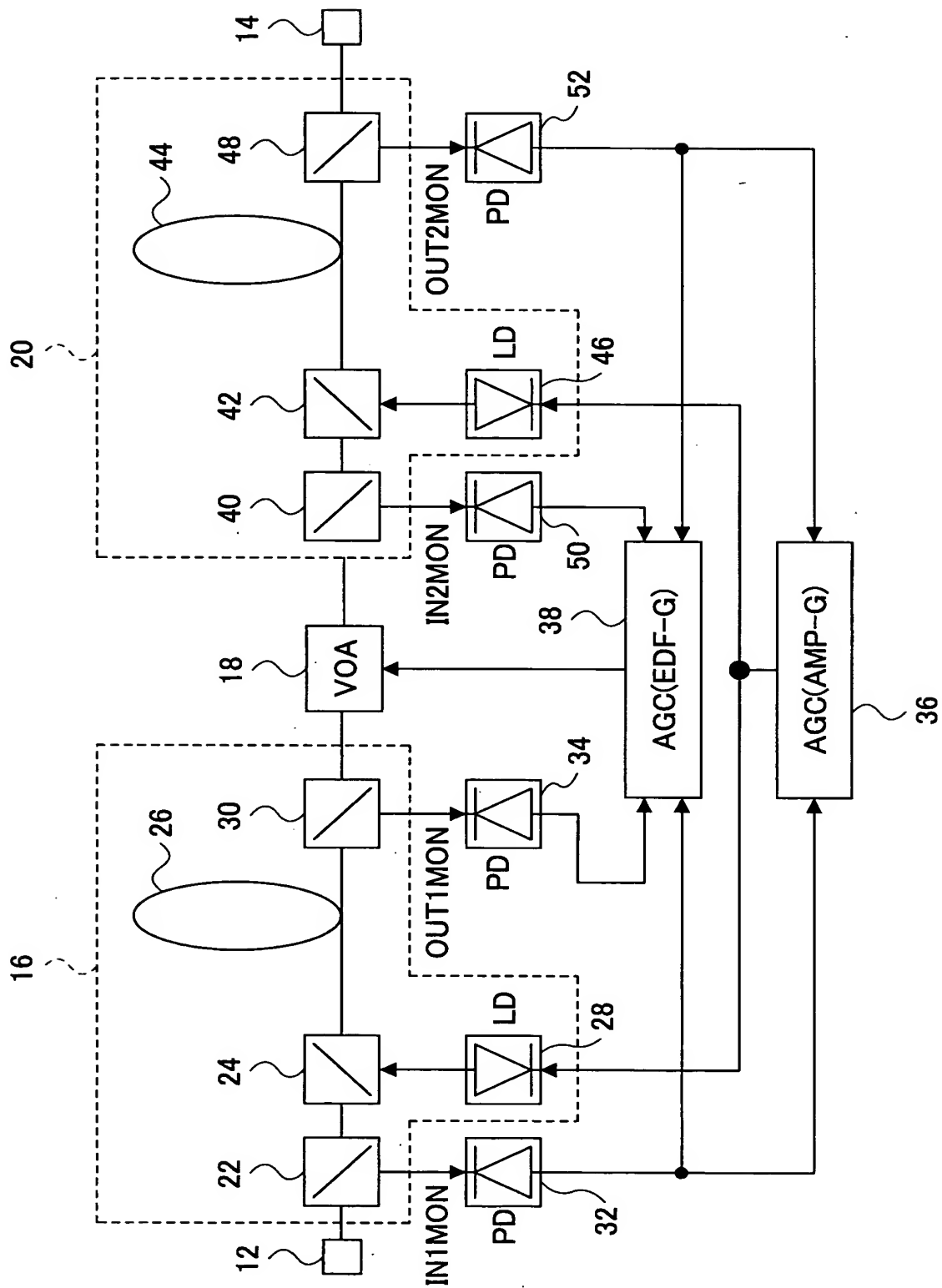


FIG.4

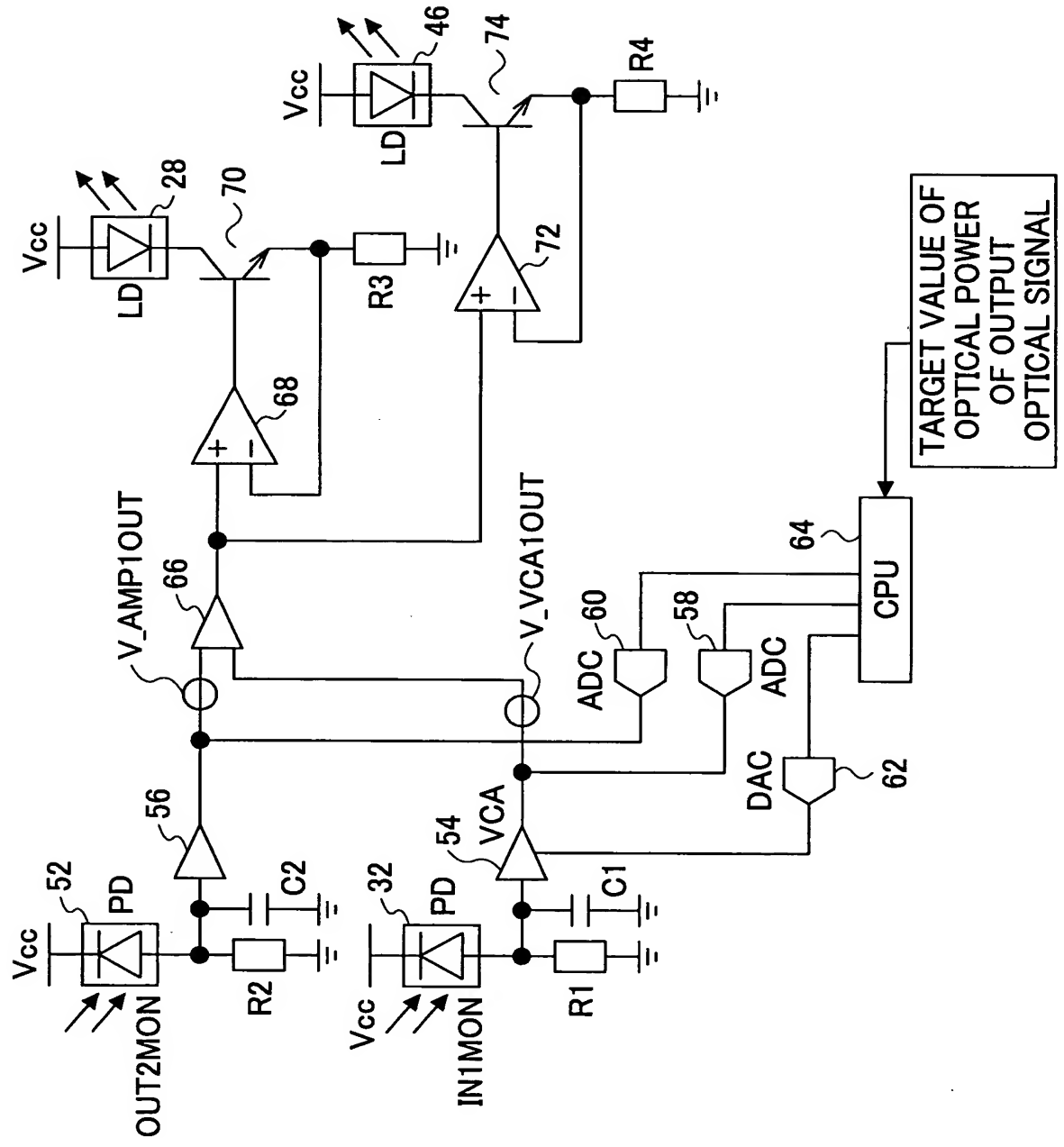


FIG.5

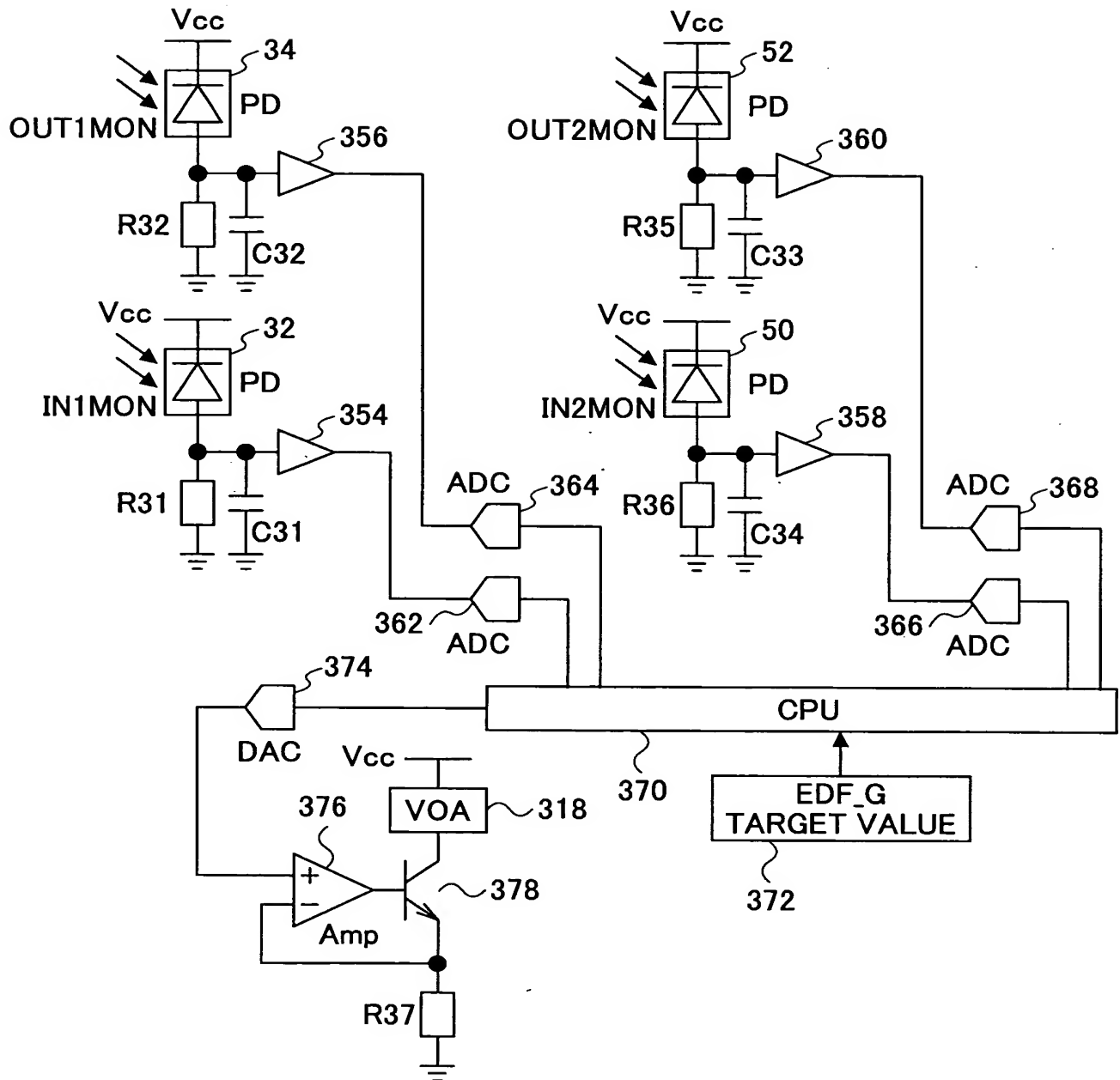


FIG.6

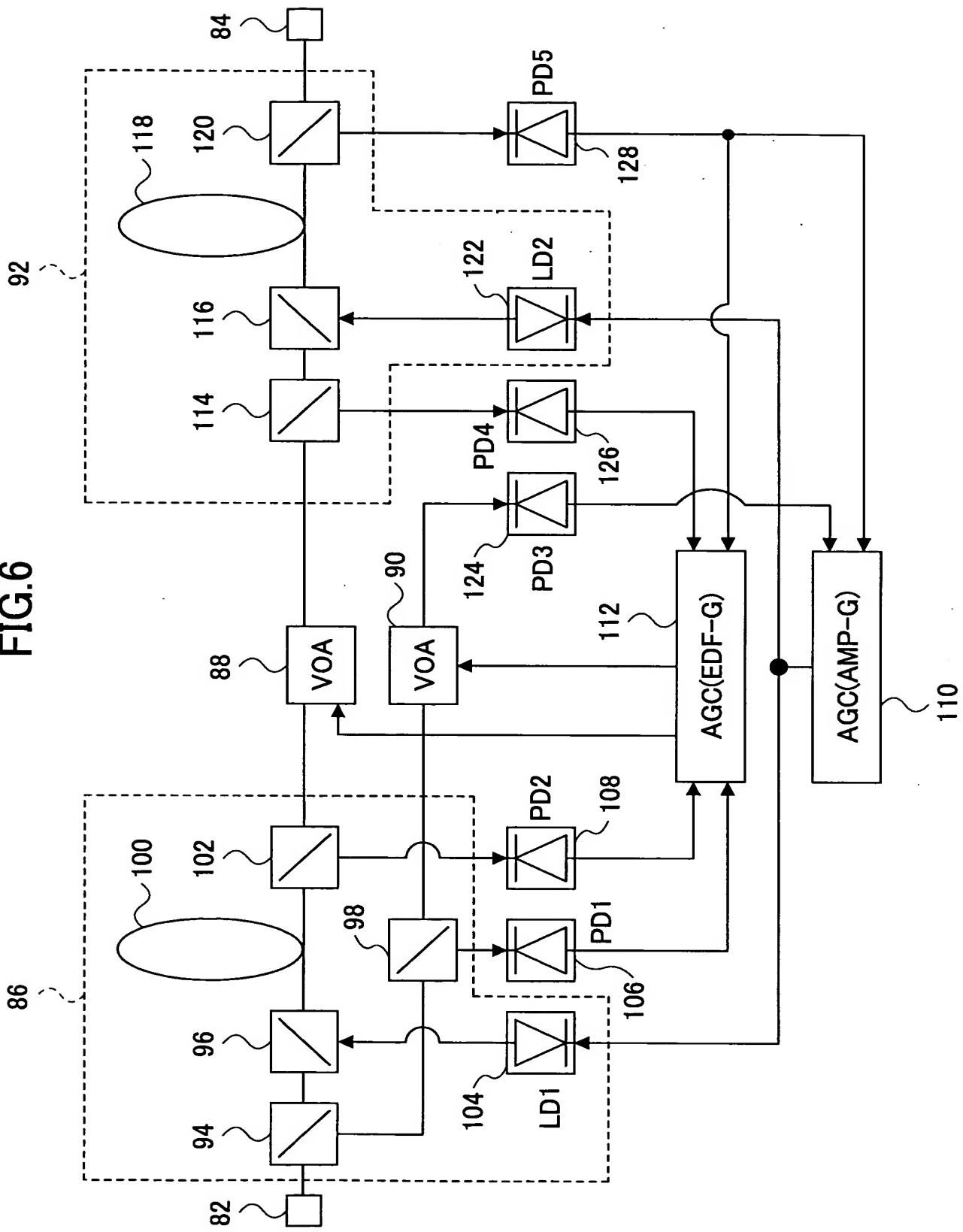


FIG.7

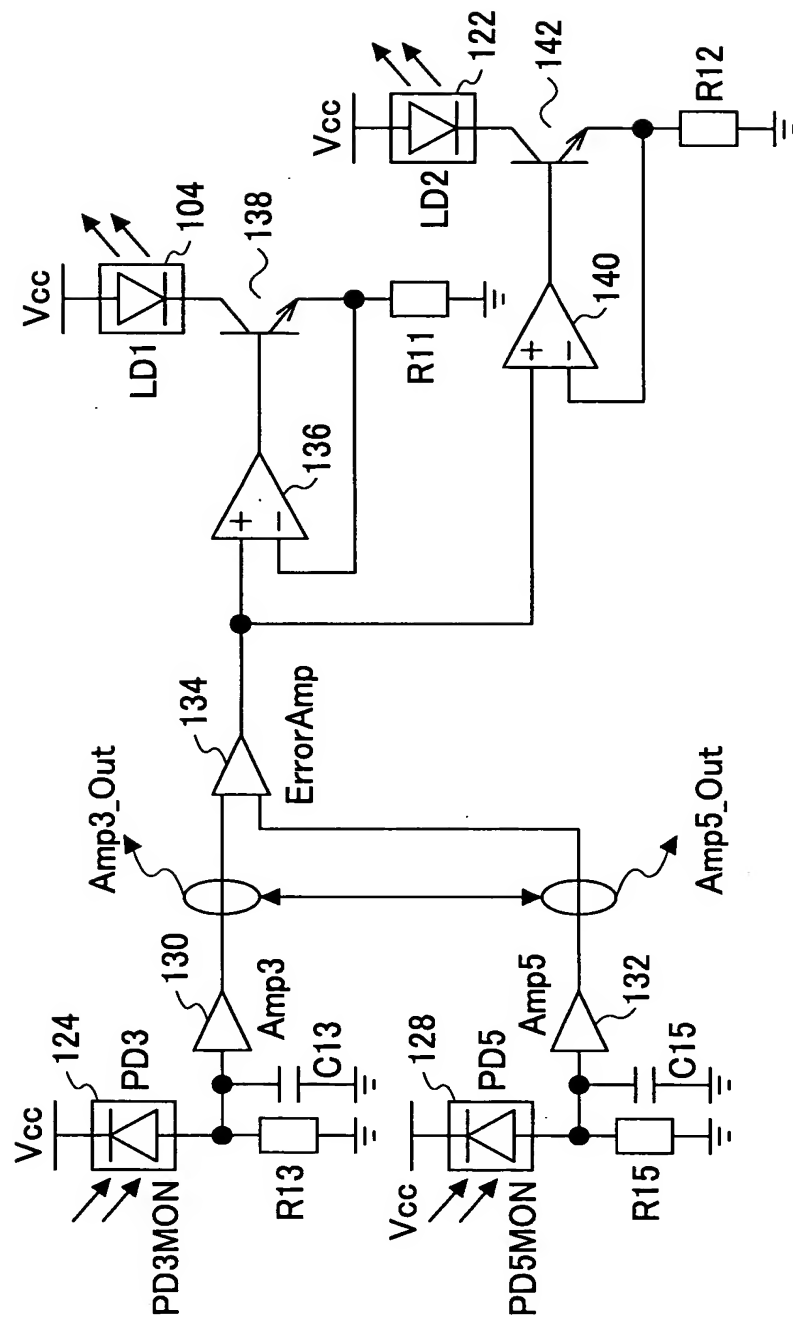


FIG.8

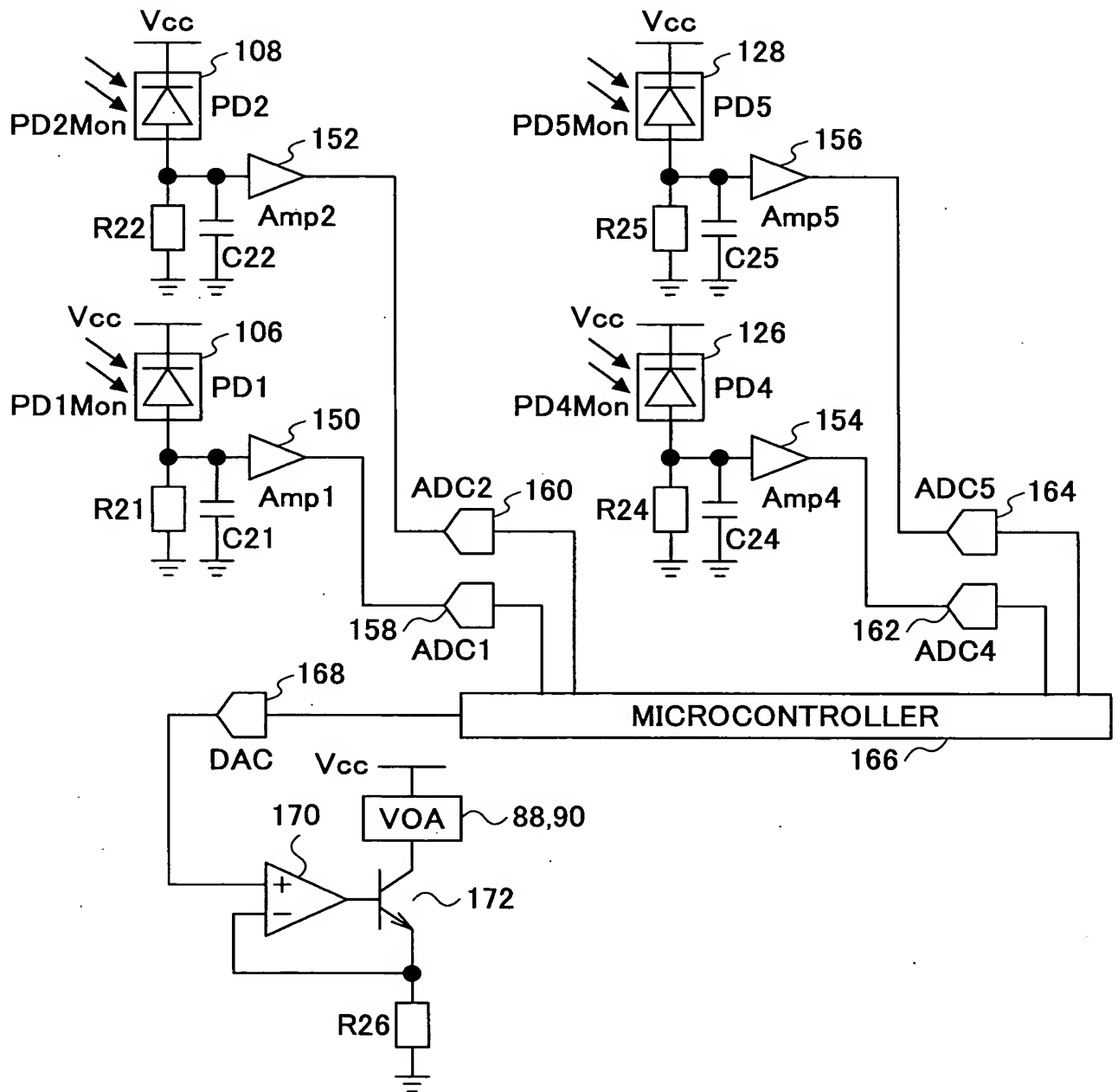


FIG.9

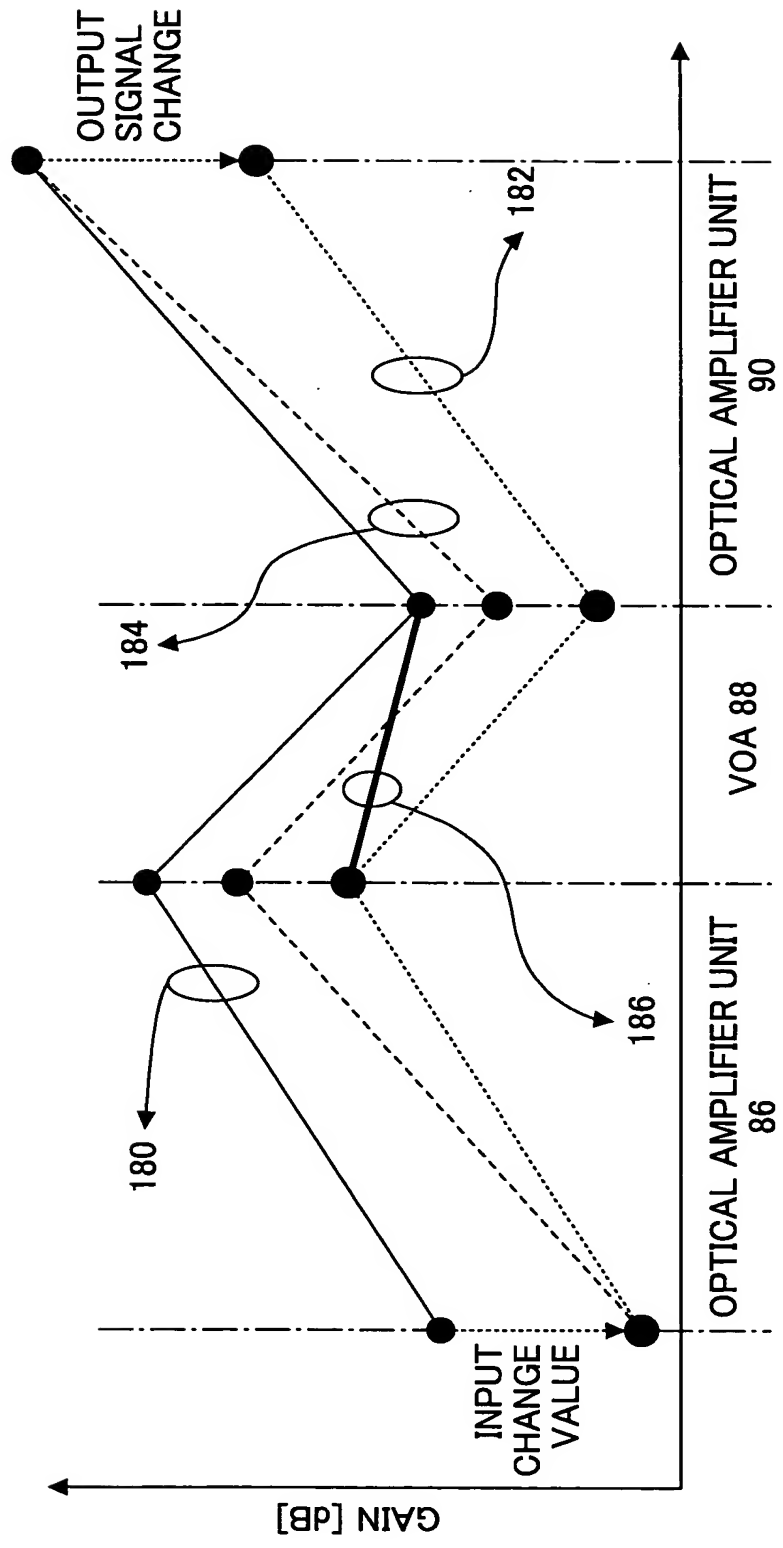




FIG.10

CONTROL STATE	INPUT SIGNAL	PD1	PD3	PD5	VOA1 _Loss	VOA2 _Loss	EDF_ total_Gain	AMP_Gain
INITIAL SETTING	X	X	X	X+A	L1	L2	A+L1	A
INPUT CHANGE	X-á	X-á	X-á	X+A-á	L1	L2	A+L1	A
CHANGE CORRECTION	X-á	X-á	X	X+A	L1	L2- $\alpha$	A+L1+ $\alpha$	A+ $\alpha$
EDF_Gain CONTROL	X-á	X-á	X	X+A	L1- $\alpha$	L2- $\alpha$	A+L1	A+ $\alpha$

FIG. 11

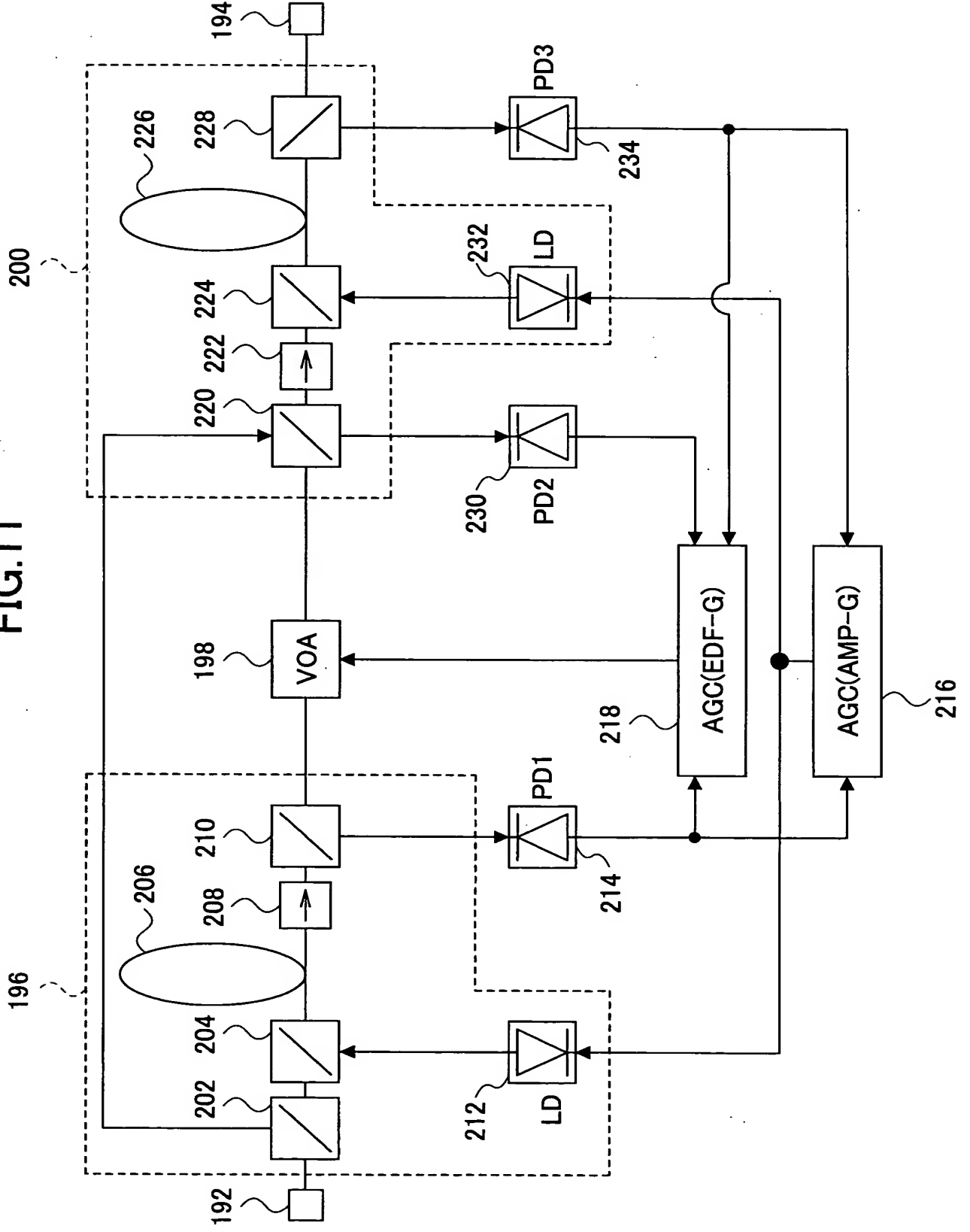


FIG.12

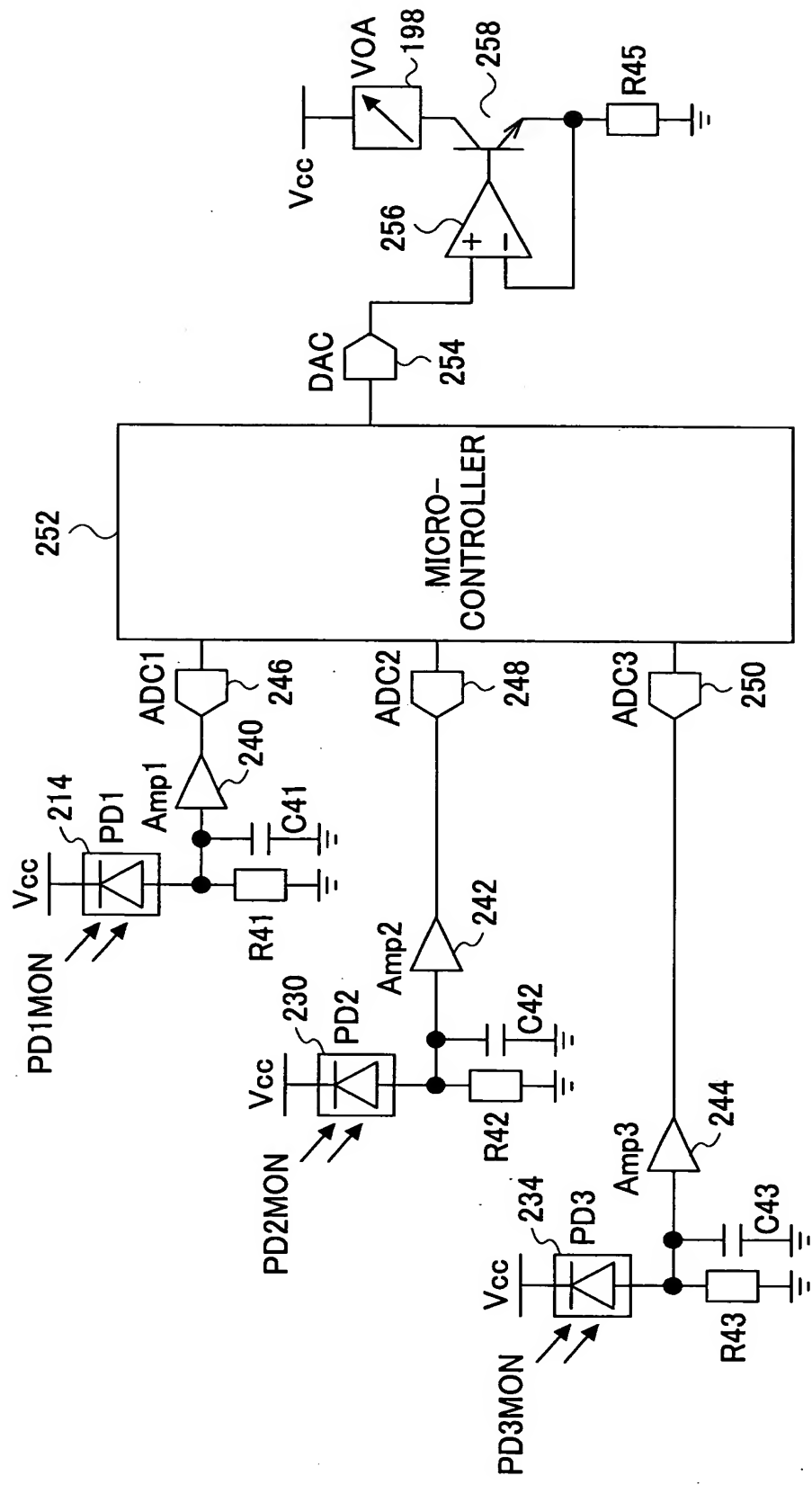




FIG.14

CONTROL STATE	INPUT SIGNAL	PD1	PD2	PD3	VOA_Loss	EDF_ total_Gain	AMP_Gain
INITIAL SETTING 1 WAVELENGTH CHANNEL INPUT CHANGE CHANGE CORRECTION EDF_Gain CONTROL	X	X	X	X+A	L	A+L	A
	X- $\alpha$	X- $\alpha$	X- $\alpha$	X+A- $\alpha$	L	A+L	A
	X- $\alpha$	X	X- $\alpha$	X+A	L- $\alpha$	A+L	A+ $\alpha$
	X- $\alpha$	X	X- $\alpha$	X+A	L- $\alpha$	A+L	A+ $\alpha$

FIG.15

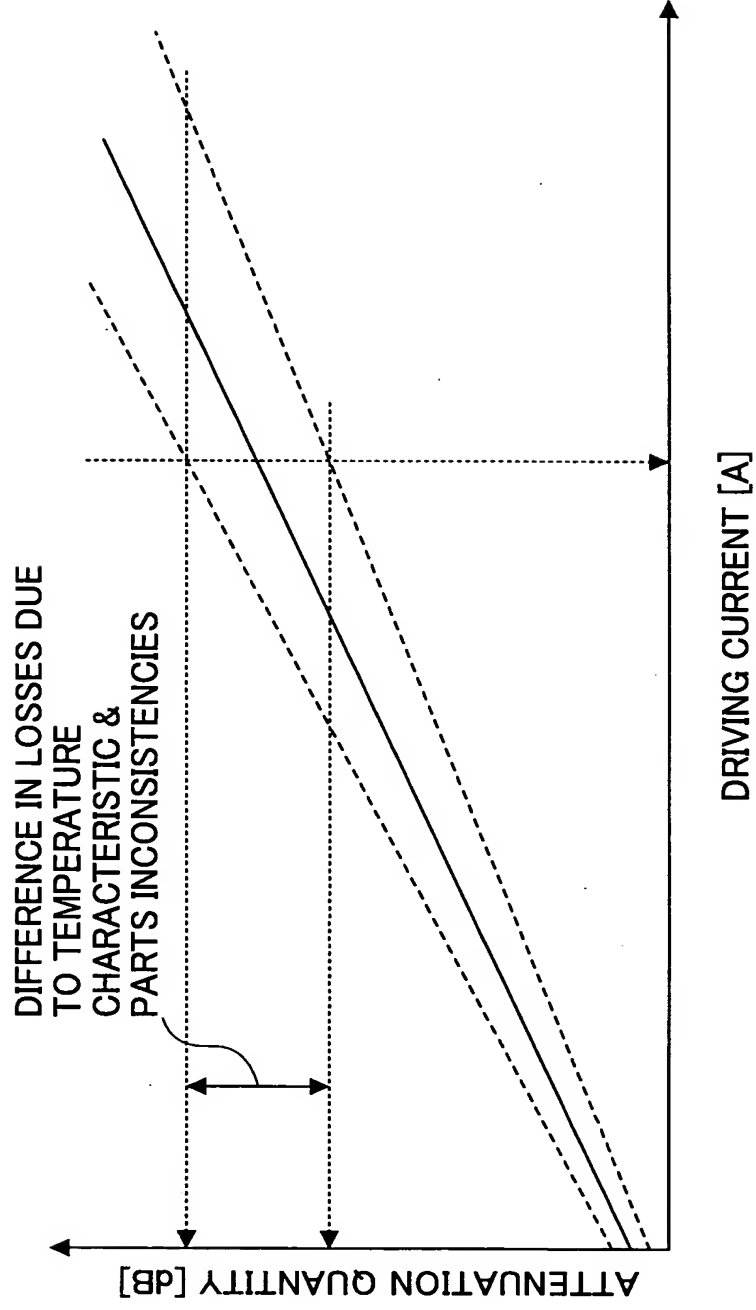


FIG.16

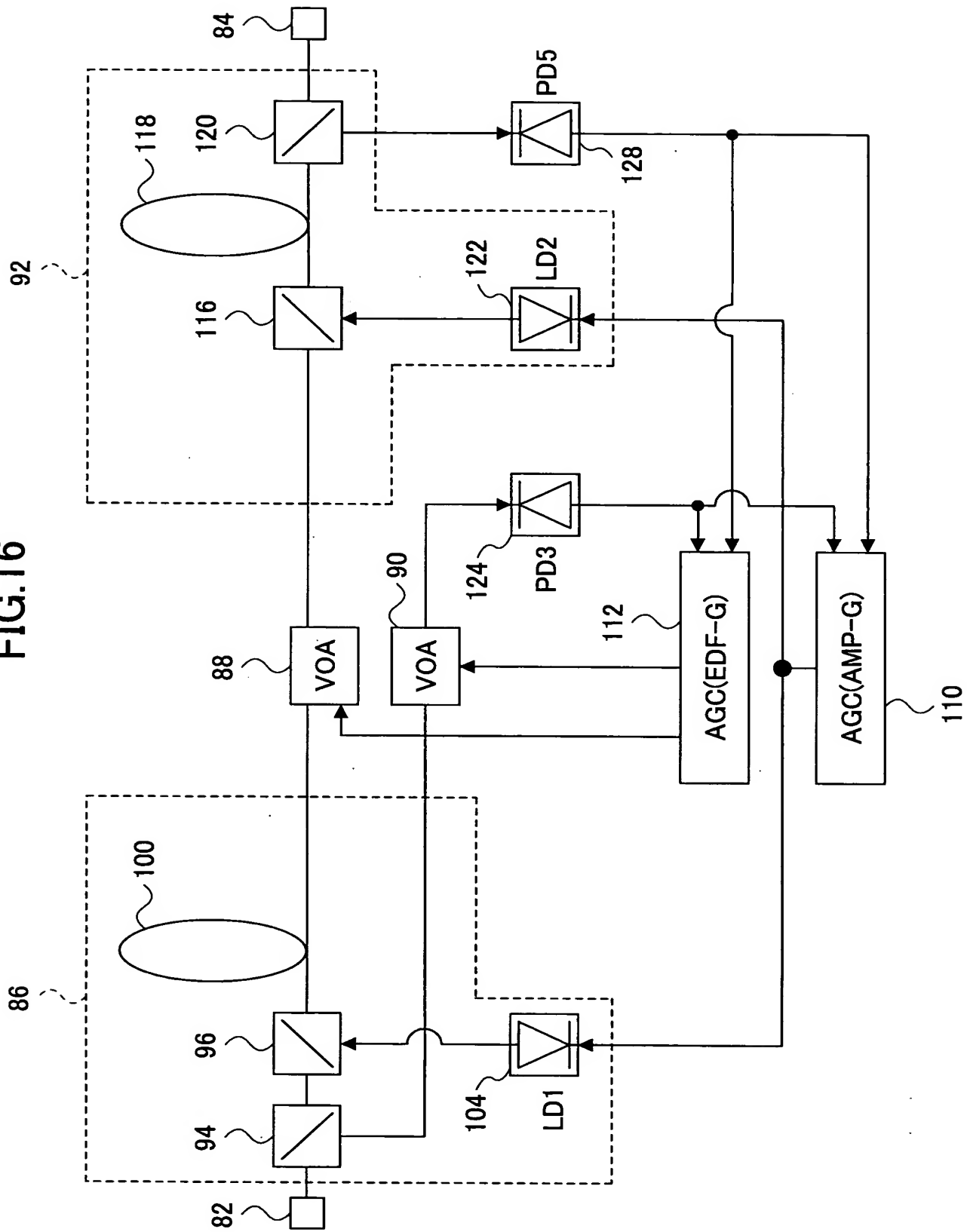


FIG.17

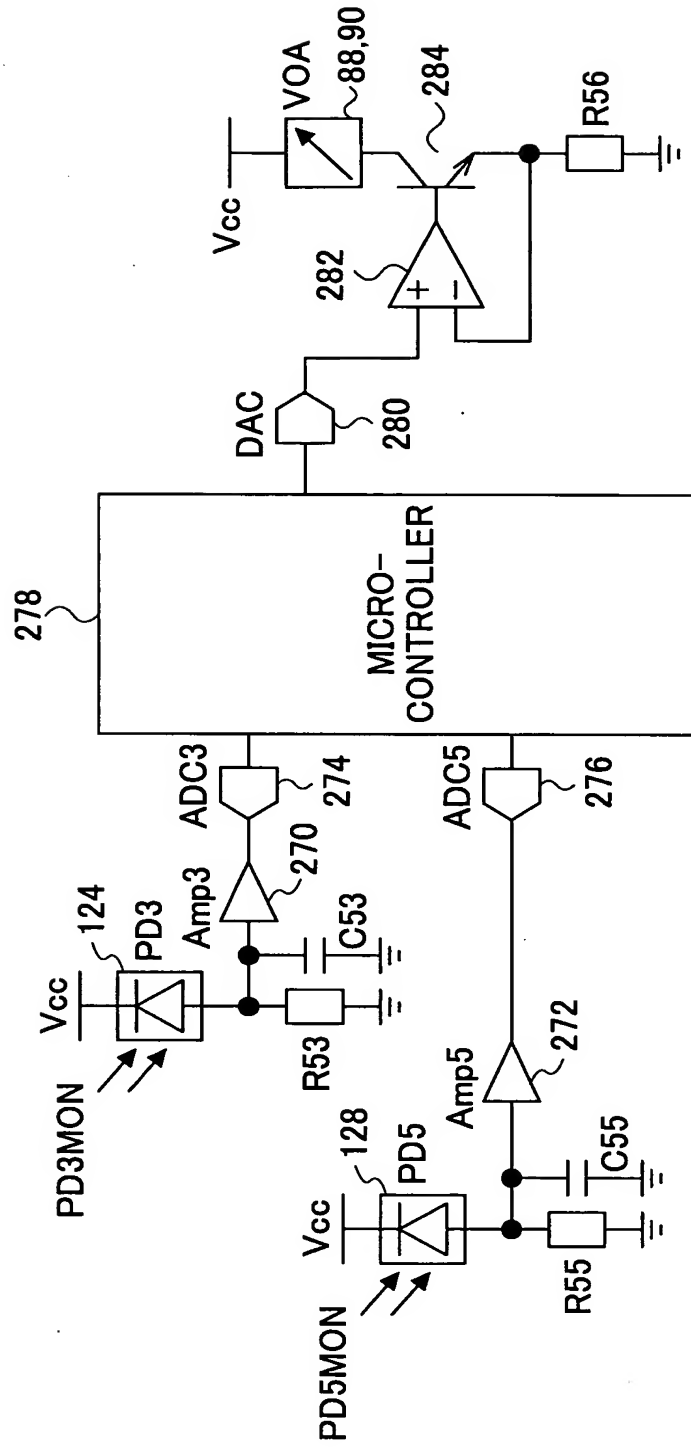




FIG.18

CONTROL STATE	INPUT SIGNAL	PD3	PD5	VOA1 _Loss	VOA2 _Loss	EDF_ total_Gain	AMP_Gain
INITIAL SETTING	X	X	X+A	L1	L2	A+L1	A
INPUT CHANGE	X- $\alpha$	X- $\alpha$	X- $\alpha$ +A	L1	L2	A+L1	A
CHANGE CORRECTION	X- $\alpha$	X	X+A	L1	L2- $\alpha$	A+ $\alpha$ +L1	A+ $\alpha$
EDF_Gain CONTROL	X- $\alpha$	X	X+A	L1- $\alpha$	L2- $\alpha$	A+L1	A+ $\alpha$

FIG.19

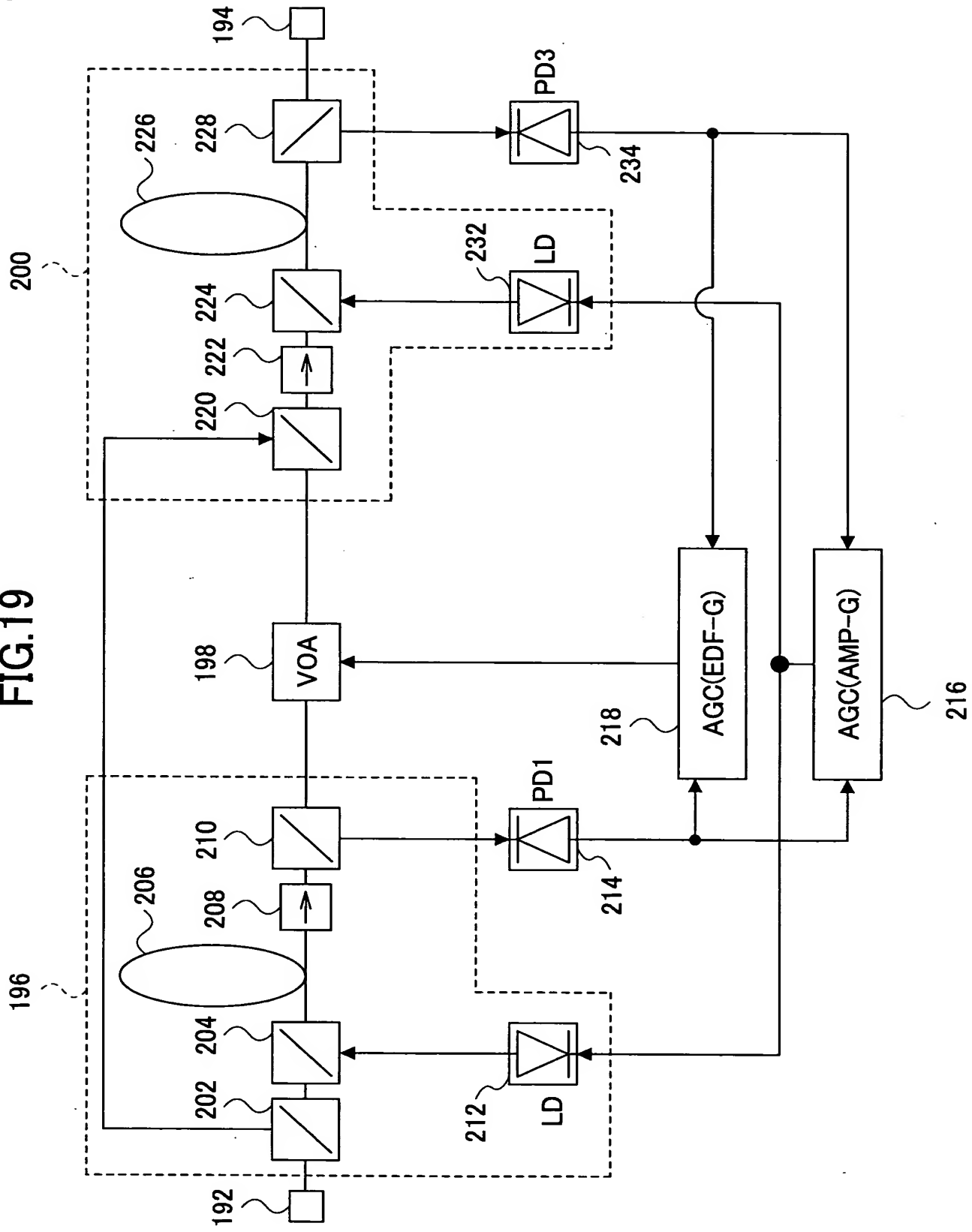


FIG.20

CONTROL STATE	INPUT SIGNAL	PD1	PD3	VOA_Loss	EDF_ total_Gain	AMP_Gain
INITIAL SETTING	X	X	X+A	L	A+L	A
INPUT CHANGE	X- $\alpha$	X- $\alpha$	X- $\alpha$ +A	L	A+L	A
CHANGE CORRECTION	X- $\alpha$	X	X+A	L- $\alpha$	A+L	A+ $\alpha$
EDF_Gain CONTROL	X- $\alpha$	X	X+A	L- $\alpha$	A+L	A+ $\alpha$